

Amendments to the Specification

Please replace paragraph [0009] with the following amended paragraph:

[0009] In another aspect of the invention, a positioner includes ~~an anchor portion securing the positioner adjacent the femoral canal and a retention portion~~ a first member and a second member. The first member extends extending from the anchor portion and over a portion of the implant such that it limits upward axial motion of the femoral hip implant and permits downward axial motion of the femoral hip implant. The second member extends from the first member and secures the positioner adjacent to the femoral canal.

Please replace paragraph [0010] with the following amended paragraph:

[0010] In another aspect of the invention, a femoral hip system includes a femoral hip implant having a stem for insertion in a femoral canal and a ~~retention member~~ positioner. The ~~retention member~~ positioner has an anchor ~~portion member~~ member securing it in the femoral canal adjacent the femoral hip implant and a retention ~~portion member~~ member engageable with a portion of the femoral hip implant such that it blocks upward motion of the implant out of the canal while permitting downward motion of the implant into the canal.

Please replace paragraph [0012] with the following amended paragraph:

[0012] In another aspect of the invention, a method includes providing a femoral hip implant configured to fit within a femoral canal; inserting cement into the femoral canal; inserting the femoral hip implant into the cement in the femoral canal; and inserting an implant ~~retention member~~ positioner into the cement so that it becomes firmly attached to the cement upon hardening of the cement and permits the femoral hip implant to subside down into the cement but prevents it from rising up out of the cement beyond a predetermined position by engagement with the implant ~~retention member~~ positioner.

Please replace paragraph [0019] with the following amended paragraph:

[0019] The positioner may include a ~~portion~~ first member, or retention member, overlying a portion of the implant in the direction of the longitudinal axis of the femoral canal so that the implant is prevented from rising by abutment against the overlying portion. The ~~overlying portion retention member~~ may extend over the top of the implant and/or over an intermediate portion of the implant. The positioner may include multiple members with one or more retention members extending over overlying a portion of the implant and one or more second members, or anchor members, extending into the bone and/or cement to anchor the positioner. The members may angle away from one another and/or form an "L", "U", saddle, and/or other suitable shape. The individual members may have a round, rectangular, straight, tapered, and/or any other suitable cross sectional shape. The members may engage the femoral implant to retain the positioner on the femoral implant until they are inserted into the femoral canal. The members may fit loosely, fit tightly, be elastically biased against, or otherwise engage the implant. The

members may be adjacent the implant or include third members, or spacing members, in the form of projections that engage the implant and space the members from the implant to allow cement to be positioned between the implant and members. For example, the positioner may include a body with a plurality of anchor members in the form of legs extending downwardly and a spacing member in the form of a projection extending inwardly from each leg that is biased to elastically grip the implant.

Please replace paragraph [0020] with the following amended paragraph:

[0020] The positioner may control the radial position of the femoral hip implant relative to the wall of the femoral canal. The positioner may space the implant from the anterior, posterior, medial, and/or lateral aspects of the canal wall. The positioner may engage the implant initially when the implant and positioner are inserted into the femoral canal. The positioner may control the radial position of the implant during this initial period and then subsequently, under physiologic loads of patient use, permit the implant to move axially away from the positioner. For, example the positioner may maintain the radial position of the implant within the femoral canal while cement hardens around the implant and then, in use, allow the implant to subside into the implant under physiologic loads. The positioner may include a first portion engageable with the top of the implant and a second portion engageable with the wall of the femoral canal to space the implant a predetermined distance from the wall. For example, the first portion may include a third member, or spacing member in the form of a boss, extending downwardly to engage an opening in the top of the implant. The Alternatively, the positioner may include spacing members extending along the anterior, posterior, medial, and lateral sides of the implant to space the implant from the wall of the femoral canal. The spacing members may each include a tab engaging the side of the implant to space the spacing members from the implant to permit cement to be positioned between the spacing members and the implant. The positioner may also prevent the implant from rising out of the femoral canal beyond a predetermined position.

Please replace paragraph [0024] with the following amended paragraph:

The positioner 10 includes a first member, or top retention member 60, positionable over a portion of the femoral component 36 to prevent the femoral component 36 from rising out of the femoral canal beyond a predetermined position. In the illustrative embodiment, the top retention member 60 is positioned over the shoulder 48 of the implant. However it is contemplated that the top retention member 60 may be positioned over other portions of the femoral component 36 relative to the canal 14 axis 18 so that the femoral component 36 is prevented from rising from the canal 14 by abutment against the top retention member 60. For example, the top retention member 60 may be positioned over a projection anywhere along the stem 44. Alternatively, the positioner 10 may include a portion that fits within a recess in the stem 44.

Please replace paragraph [0025] with the following amended paragraph:

[0025] The positioner 10 further includes a second member, or lateral leg anchor member 62, for anchoring the top retention member 60 relative to the canal 14 and/or cement 52. In the

illustrative embodiment, the ~~lateral leg anchor member~~ 62 extends at an angle from the ~~top~~ retention member 60 and is embedded in the cement 52 to anchor the ~~top~~ retention member 60 relative to the cement 52. However, the ~~lateral leg anchor member~~ 62 may also be anchored in bone, for example by driving it into the femur 16 adjacent the canal 14 and thus anchor the ~~top~~ retention member 60 relative to the canal 14. Scallops 63 in the ~~lateral leg anchor member~~ 62 create a positive engagement with the cement 52 and/or femur 16 to enhance the fixation of the ~~lateral leg anchor member~~ 62.

Please replace paragraph [0026] with the following amended paragraph:

[0026] The illustrative positioner 10 further includes anterior 64 and posterior 66 members, or legs, extending from the ~~top~~ retention member 60 and/or ~~lateral leg anchor member~~ 62 to grip the femoral component 36. In the illustrative embodiment, the anterior 64 and posterior 66 legs are elastic and are biased inwardly to grip the femoral component 36. However, other means for gripping the implant are contemplated and fall within the scope of the present invention. The anterior 64 and posterior 66 members may be embedded in the cement 52 as shown to assist in anchoring the ~~top~~ retention member 60.

Please replace paragraph [0027] with the following amended paragraph:

[0027] The positioner 10 further includes a spacing member in the form of a boss 70 projecting downwardly from the ~~top~~ retention member 60 to engage a recess 72 in the shoulder of the femoral component 36 in radial force transmitting relationship. The boss 70 helps to maintain the positioner 10 in proper orientation relative to the femoral component 36. Furthermore, the radial spacing of the boss 70 and one or more of the legs 62, 64, 66 maintains a predetermined spacing between the femoral component 36 and canal 14 wall 20. In the illustrative embodiment, the boss 70 and ~~lateral leg anchor member~~ 62 form an "L"-shaped spacer with a ~~top~~ retention member 60 positionable over and engageable with a portion of the femoral component 36 and a ~~lateral leg anchor member~~ 62 positionable adjacent the canal 14 wall 20 to space the femoral component 36 from the lateral aspect 24 of the canal 14 wall 20. Where present, the anterior 64 and posterior 66 legs may likewise provide a predetermined radial spacing from the anterior 26 and posterior 28 aspects of the canal 14 wall 20. In the illustrative embodiment, the engagement of the ~~top~~ retention member 60 and femoral component 36 is shown as a male boss 70 on the positioner 10 and a female recess 72 on the femoral component 36. However, it is contemplated that these may be reversed so that a male feature on the femoral component 36 engages a female feature on the positioner 10. Likewise, other engagement features providing for radial spacing are contemplated and fall within the scope of the present invention.

Please replace paragraph [0028] with the following amended paragraph:

[0028] The lateral 62, anterior 64, and posterior 66 legs further include spacing members in the form of projections, or tabs 68, to space the members from the femoral component 36 and allow the cement 52 to be positioned between the legs 62, 64, 66 and the femoral component 36 so that the cement 52 makes direct contact with the femoral component 36. In addition, the tabs 68 may

project a sufficient predetermined distance to substantially fill the space between the femoral component 36 and the canal 14 wall 20 and act to radially space the femoral component 36 from the canal 14 wall 20. The tabs 68 and boss 70 may be separately used or used in combination as shown.